

AMENDMENTS TO THE CLAIMS

1. (Currently amended): An apparatus for producing a sequence of a predetermined length in a spread spectrum communication system, comprising:

means for storing a plurality of predetermined sequences having lengths less than the predetermined length;

means for arranging the plurality of predetermined sequences in an indexed list;

means for selecting at least two of the plurality of predetermined sequences from the indexed list; and

means for concatenating the selected predetermined sequences to produce the sequence of the predetermined length,

wherein the means for selecting comprises:

means for selecting a first sequence of the at least two of the plurality of predetermined sequences with an index value of n from the indexed list, and

means for selecting each successive sequence of the at least two of the plurality of predetermined sequences with an index value incremented from that of the previously selected sequence from the indexed list, and

wherein n is determined from at least one of A-F:

A initial cell parameter assignment,

B system frame number (SFN),

C chip rate of transmission,

D predetermined length of scrambling code,

E identifier of intended receiver of data spread with the predetermined length spreading code, and

F channelisation code employed.

2. (Cancelled)

3. (Currently amended): The apparatus of claim [[2]] 1 wherein the increment is a predetermined integer.

4. (Previously presented): The apparatus of claim 3 wherein the predetermined integer is one of: 0, 1 and 2.

5. (Currently amended): The apparatus of claim [[2]] 1 wherein the increment is randomly chosen for each successive sequence.

6. (Cancelled)

7. (Previously presented): The apparatus of claim 1 wherein the plurality of predetermined sequences have a length of 16 chips.

8. (Previously presented): The apparatus of claim 1 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

9. (Previously presented): The apparatus of claim 8 wherein the system comprises a UTRA TDD system.

10. (Previously presented): The apparatus of claim 1 wherein the sequence is one of:

a spreading sequence,

a scrambling sequence and

a midamble.

11. (Previously presented): The apparatus of claim 1 further comprising:

means for processing data with the predetermined length sequence.

12. (Currently amended): A method of producing a sequence of a predetermined length in a spread spectrum communication system, the method comprising:

storing a plurality of predetermined sequences having lengths less than the predetermined length;

arranging the plurality of predetermined sequences in an indexed list;

selecting at least two of the plurality of predetermined sequences from the indexed list;
and

concatenating the selected predetermined sequences to produce the sequence of the predetermined length,

wherein selecting comprises:

selecting a first sequence of the at least two of the plurality of predetermined sequences with an index value of n from the indexed list, and

selecting each successive sequence of the at least two of the plurality of predetermined sequences with an index value incremented from that of the previously selected sequence from the indexed list, and

wherein n is determined from at least one of A-F:

A initial cell parameter assignment,

B system frame number (SFN),

C chip rate of transmission,

D predetermined length of scrambling code,

E identifier of intended receiver of data spread with the predetermined length spreading code, and

F channelisation code employed.

13. (Cancelled)

14. (Currently amended): The method of claim [[13]] 12 wherein the increment is a predetermined integer.

15. (Original): The method of claim 14 wherein the increment is one of: 0, 1 and 2.

16. (Currently amended): The method of claim [[13]] 12 wherein the increment is randomly chosen for each successive sequence.

17. (Cancelled)

18. (Previously presented): The method of claim 12 wherein the plurality of predetermined sequences have a length of 16 chips.

19. (Currently amended): The method of claim [[11]] 12 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

20. (Original): The method of claim 19 wherein the UMTS system comprises a UTRA TDD system.

21. (Previously presented): The method of claim 12 further comprising:

processing data with the predetermined length sequence.

22. (Previously presented): A base station for use in a CDMA system, the base station comprising the apparatus of any one of claims 1-11.

23. (Previously presented): User equipment for use in a CDMA system, the user equipment comprising the apparatus of any one of claims 1-11.

23. (Previously presented): A computer-readable storage medium containing computer-executable instructions for performing the method of any one of claims 12-21.

24. (Previously presented): An integrated circuit comprising the apparatus of any one of claims 1-11.

25-27. (Cancelled)

28. (Currently amended): The apparatus of claim [[2]] 1 wherein the plurality of predetermined sequences has a length of 16 chips.

29. (Previously presented): The apparatus of claim 3 wherein the plurality of predetermined sequences has a length of 16 chips.

30. (Previously presented): The apparatus of claim 4 wherein the plurality of predetermined sequences has a length of 16 chips.

31. (Previously presented): The apparatus of claim 5 wherein the plurality of predetermined sequences has a length of 16 chips.

32. (Cancelled)

33. (Currently amended): The apparatus of claim [[2]] 1 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

34. (Previously presented): The apparatus of claim 3 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

35. (Previously presented): The apparatus of claim 4 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

36. (Previously presented): The apparatus of claim 5 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

37. (Cancelled)

38. (Previously presented): The apparatus of claim 7 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

39. (Currently amended): The apparatus of claim [[2]] 1 wherein the sequence is one of:

a spreading sequence,

a scrambling sequence and

a midamble.

40. (Previously presented): The apparatus of claim 3 wherein the sequence is one of:

a spreading sequence,

a scrambling sequence and

a midamble.

41. (Previously presented): The apparatus of claim 4 wherein the sequence is one of:

a spreading sequence,
a scrambling sequence and
a midamble.

42. (Previously presented): The apparatus of claim 5 wherein the sequence is one of:

a spreading sequence,
a scrambling sequence and
a midamble.

43. (Cancelled)

44. (Previously presented): The apparatus of claim 7 wherein the sequence is one of:

a spreading sequence,
a scrambling sequence and
a midamble.

45. (Previously presented): The apparatus of claim 8 wherein the sequence is one of:

a spreading sequence,
a scrambling sequence and
a midamble.

46. (Currently amended): The apparatus of claim [[2]] 1 further comprising:

means for processing data with the predetermined length sequence.

47. (Previously presented): The apparatus of claim 3 further comprising:

means for processing data with the predetermined length sequence.

48. (Previously presented): The apparatus of claim 4 further comprising:

means for processing data with the predetermined length sequence.

49. (Previously presented): The apparatus of claim 5 further comprising:

means for processing data with the predetermined length sequence.

50. (Cancelled)

51. (Previously presented): The apparatus of claim 7 further comprising:

means for processing data with the predetermined length sequence.

52. (Previously presented): The apparatus of claim 8 further comprising:

means for processing data with the predetermined length sequence.

53. (Previously presented): The apparatus of claim 9 further comprising:

means for processing data with the predetermined length sequence.

54-57. (Cancelled)

58. (Currently amended): The method of claim [[13]] 12 wherein the plurality of predetermined sequences have a length of 16 chips.

59. (Previously presented): The method of claim 14 wherein the plurality of predetermined sequences have a length of 16 chips.

60. (Previously presented): The method of claim 15 wherein the plurality of predetermined sequences have a length of 16 chips.

61. (Previously presented): The method of claim 16 wherein the plurality of predetermined sequences have a length of 16 chips.

62. (Cancelled)

63. (Previously presented): The method of claim 12 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

64. (Cancelled)

65. (Previously presented): The method of claim 14 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

66. (Previously presented): The method of claim 15 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

67. (Previously presented): The method of claim 16 wherein the spread spectrum communication system comprises a DS-CDMA UMTS system.

68. (Cancelled)

69. (Currently amended): The method of claim [[13]] 12 further comprising:

processing data with the predetermined length sequence.

70. (Previously presented): The method of claim 14 further comprising:

processing data with the predetermined length sequence.

71. (Previously presented): The method of claim 15 further comprising:

processing data with the predetermined length sequence.

72. (Previously presented): The method of claim 16 further comprising:

processing data with the predetermined length sequence.

73. (Cancelled)

74. (Previously presented): The method of claim 18 further comprising:

processing data with the predetermined length sequence.

75. (Previously presented): The method of claim 19 further comprising:

processing data with the predetermined length sequence.

76. (Previously presented): The method of claim 20 further comprising:

processing data with the predetermined length sequence.

77. (Previously presented): The apparatus of claim 1, wherein a first of the selected predetermined sequences comprises a length M and a second of the selected predetermined sequences comprises a length N.

78. (Previously presented): The apparatus of claim 77, wherein M equals N.

79. (Previously presented): The apparatus of claim 77, wherein M is not equal to N.

80. (Previously presented): The method of claim 12, wherein a first of the selected predetermined sequences comprises a length M and a second of the selected predetermined sequences comprises a length N.

81. (Previously presented): The method of claim 80, wherein M equals N.

82. (Previously presented): The method of claim 80, wherein M is not equal to N.